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June 22, 2003

FAA-03-14715-19

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The Grand Canyon Trust appreciates this opportunity to comment on the proposed FAA Standard for Noise Limitations at Grand Canyon National Park, as promulgated in FAA Notice No. 03-05, Docket Number FAA 2003-14715.

We, and our partner organizations, commented extensively on this proposal for a noise emission standard in early 1997. We reiterate and expand upon some of these comments here, but must also emphasize the shrinking circle of time in which we find ourselves:

- Time is fast running out towards the committed Due Date of *April 22, 2008* for accomplishing the substantial restoration of natural quiet at GCNP. (In late 1996, when this noise standard was first proposed, the FAA had more than eleven years available to the deadline; now there remains but four years and ten months.)
- This proposed Rule, unfortunately, does not represent an equivalent advance towards restoration, comparable to the 1996 proposed Rule, because this time we are presented with the mere defining of the standard, with no implementing *measures* to utilize it.
- The Comprehensive Noise Management Plan (CNMP) – promised by the agencies in the original 1996 Noise Limitations Rule preamble, to be fully operative by *May 1, 2002* – appears still nowhere in sight. The Canyon is far out of compliance, as the FAA has recognized, and as per definitional clarifications re “substantial restoration” further provided in the decision of the U.S. Court of Appeals, D.C. Circuit. (August, 2002).
- The continuing absence of this overdue “linchpin” CNMP puts into increasing doubt the key representations FAA made to Congress in its August, 2001 Report, re: “Quiet Aircraft Technology for Grand Canyon”:

“The goal of this (quiet technology) effort is to use quiet technology as the final increment for achieving substantial restoration of natural quiet at GCNP. Thus, it is absolutely imperative to prove that the (quiet technology) proposal under consideration is reasonable, appropriate, and will achieve the goal.”

So, without the other remedial measures being precisely set first in place, how can the FAA possibly, intelligently honor its own declaration?



KEY REQUEST: Please therefore provide Revised Due Dates for the Comprehensive Noise Management Plan, first in draft, and then in Final Rule form.

While the Grand Canyon Trust supports the re-stated Noise Limitation Standard for “quiet technology” -- as it did more than six years ago -- we must simultaneously request that the FAA and the NPS immediately produce determinations on the following items:

1. Step One: Determine the “other increments” first, using a preliminary estimate based on what has to date been accomplished under all parameters and tools utilized to date by the agencies, including the court’s clarifications from Y2002.
2. Step Two: Determine how far we remain from the Goal. This determination should be provided no later than one year from now (Spring, 2004), based on the Base Year operations data from 1997-8.
3. Step Three: Adjust the degree of restoration accordingly, by (a) further modifying the “East End Routes” proposal (as described below); (b) appropriately revising the cap and or curfew; (c) including quantitatively the degree by which FAA intends to mitigate the noise from other, non-tour aircraft overflying GCNP.

The Grand Canyon Trust considers “quiet technology” rulemaking of value. But the Trust does not support quiet technology issues being allowed to interminably delay equally overdue, easily obtainable, substantive relief using various other tools. The track record of the agencies over the past decade, together with the performance of the NPOAG (National Parks Overflights Advisory Group) to date -- particularly referring to its neglect of its assigned role re *quiet technology* -- inspires no confidence that the quiet technology “final increment” can be remotely in place by 2008.

However, it will still be desirable to integrate the “quiet technology” increment into the overall scheme *as soon as possible thereafter*. It will be necessary as we near the conclusion of the “fifteen year phase-in” for quiet technology described in the NPS 1994 Report to Congress. The “substantial restoration” must not only be attained by April, 2008; it must then be *maintained*, if not improved upon, indefinitely. (It serves little purpose to barely attain said restoration for a brief interval -- say, the Y2008 season -- only to have the situation revert back immediately to unlawful and unacceptable noise levels.)

KEY POINT: The 1994 NPS Report to Congress declared:

“The 15 year phased approach is designed to allow the air tour industry time to acquire such technology, either through purchasing new equipment or retrofitting existing equipment.”

In 1997, the environmental coalition warned the FAA, in its comments on the Noise Limitation NPRM) that, while the quiet technology rule could be part of a larger plan, “quiet technology” wouldn’t do it alone. “Quiet Technology” still means Noise, lots of it!

The Trust requested in those comments that the conversion to the quietest aircraft be immediately mandated, and that a cap on the number of tour operations be well below the 1987 levels. None of this was done.

The Trust also observed that some “quiet aircraft” are noisier than some “non-quiet” aircraft, under this same definition. Therefore, caps would need to be implemented, both on the number of operations a (formerly designated “C”) “quiet” aircraft can fly, as well as on the number of air tour passengers. We also support comments from the Sierra Club – Grand Canyon Chapter – re “Helicopters vs. Fixed Wing”. Helicopters are simply not “quiet” given the special nature of their fluctuating noise, even under the proposed standard.

The FAA clearly lacks basis for implying possible future “removal” of the air tour limitations (in consultation with NPOAG.) Rather, the FAA will need, if anything, to quickly discuss tightening the cap on all tours, in order to comply with the law.

In September 30, 1996 comments on FAA Docket No. 28537, the Grand Canyon Trust stated, “the Park Service proposal for conversion to quiet aircraft is an excellent one and should be followed. It would progressively phase out all but the quietest aircraft from the Dragon Corridor first, followed by... the Zuni Point Corridor.”

Now, in the nearly seven years since the Trust offered those comments, we can look back with hindsight on the Park Service’ 1994 proposal and make the following observations:

- All time has expired, under the current severe degree of regulatory non-compliance, for any appropriate or reasonable continued existence of the Dragon Corridor. The Park Service envisioned its use as a temporary-only “incentive corridor” just for the five-year period 1997-2002 (following the 1997 Final Rule effective date.) That time is long past gone, the opportunity to so use it apparently squandered.
- Limited time – perhaps one season, 2007 – would remain for the Zuni to be deployed as a “quiet technology” incentive corridor, before the Y2008 Due Date.

By May 1, 2006, the FAA should promulgate a Noise Limitation Draft Rule, which could become final May 1, 2007. This final Rule would (1) convert the Zuni Corridor to “quiet aircraft only”, and (2) abolish the Dragon Corridor, except possibly for some limited quiet technology incentive use during a couple of “off seasons” (2007, 2008), when the North Rim is blocked to most visitor use.

In this regard, we incorporate by reference the Sierra Club – Angeles Chapter’s comments dated March 12, 1997, on Docket 28770, into our current comments. These illustrated comments focused on the Dragon Corridor and its invasive, wanton disregard for the ground visitor experience of Grand Canyon National Park. The Sierra Club then rejected its intended use as an “incentive corridor” for air tours, and its reasoning appears even more cogent to us now.

The elimination of the Dragon Corridor was unfortunately never done. Its over-extended use for air tours –heavily loaded with helicopters -- in the six years since has been grossly

excessive, inappropriate, "non-incentive", and not in conformance with the NPS' original long term phase-out recommendation.

KEY POINT: By the year 2010 (the "Fifteen Year" Point) in the Park Service's proposed "phase out", all aircraft over the Grand Canyon's then remaining routes on the West End, and on the East End, "Zuni" – would be required to meet the quiet technology standard.

As can be summarized, then, from the above: We ultimately support the proposed noise emission standards ONLY if they apply to ALL commercial tour aircraft at the Grand Canyon. We join with the others in opposing duplicate routes connecting the same two points (one incentive route and one non-incentive route.) This would only INCREASE noise by spreading it over a wider area.

As other observers have commented, this would be counter-productive to both Rule and the Overflights Act. To have any positive effect, the standards must be mandatory, not voluntary. Noise emission standards should be a prerequisite for the privilege and expected consideration given for flying in the Grand Canyon SFRA. No other "incentive" is necessary (be it "preferred routes", "subsidies", "curfew elimination or shortening", "rollback in overflights fees", "waiving park admission fees for passengers", or "government loans.")

Operational limitations, at this late stage in the allotted phase-out time, will thus be immediately needed, to ensure that only "quiet technology" tour aircraft are overflying the "east End" by 2007 and the whole Park by the Y2010 season. These would include particularly "phase out" of non-conforming equipment, and "expanded curfews" (including flight free days, weeks, and or seasons). Also, noise budgets, and quota systems could be used. However, these last two may be unduly complicated to develop in the short time remaining before the Y2008 Due Date.

The central focus during the last half of the decade will increasingly be on the Canyon's West End, assuming also (1) the Y2007 proposed, belated abolition of the Dragon Corridor; and (2) the Zuni becoming "quiet aircraft only", also beginning in Y2007.

Thank you for the opportunity to comment.

Sincerely yours,



Tom Robinson
Director of Government Affairs
Grand Canyon Trust

Cc:

Senator John McCain
Superintendent Joe Alston, Grand Canyon National Park



ANGELES CHAPTER · SIERRA CLUB

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March 12, 1997

Federal Aviation Administration
Office of the Chief Counsel
Attention: Rules Docket (AGC-200)
Docket No. 28770
800 Independence Ave., S.W.
Washington, D.C. 20591

Subject: NOISE LIMITATIONS FOR AIRCRAFT OPERATIONS IN THE
VICINITY OF GRAND CANYON NATIONAL PARK
DOCKET NO. 28770

The Angeles Chapter of the Sierra Club, with more than 50,000 members in southern California, offers the following comments regarding the proposed "Noise Limitations for Aircraft Operations" for Grand Canyon National Park (GCNP). These comments are drawn from member knowledge and experience as well.

We refer herein to the NPRM of this title in the December 31, 1996 Federal Register and, where appropriate, to its draft Environmental Assessment.

We also wish to express support and backing for the comments on the NPRM which is simultaneously being provided by the Grand Canyon Chapter of the Sierra Club.

Most sincerely,

Dick Hingson

Dick Hingson
Conservation Coordinator

Attachment



ANGELES CHAPTER · SIERRA CLUB

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COMMENTS: NOISE LIMITATIONS FOR AIRCRAFT OPERATIONS IN THE
VICINITY OF GRAND CANYON NATIONAL PARK
--DOCKET NO. 28770

(1) We consider first FAA's specific and welcome request on "how to better protect areas adjacent to" the noise-sensitive Dragon Corridor.

The Dragon Corridor route across the heart of the Grand Canyon, as utilized and as routed in the Final Rule and including as in this NPRM, is incompatible with the ground visitor experience of the character and essence of Grand Canyon National Park. Intended aircraft usage patterns of the Dragon Corridor as projected in Rule, Notice, and NPRM remain fundamentally incompatible with the quieter North Rim visitor experience, one especially affording the gradually unfolding meanings and revelation that is the Canyon.

The contemplative experience of that revelation is an intrinsic part of the visitor experience at such an awesome park. This may be the Grand Canyon's most special offering to the ground visitor: the gradual unfolding of meanings, realizations, revelations, insights, impressions, mental renewal, indeed personal growth. These things are accessible through contemplative states, heightened by the panoramic vistas, which quite naturally involve focus and extended quiet attention or undistracted free association in reaction to so astonishing a natural wonder. That this is so can clearly be ascribed to, or is well documented by, comments over the last 125 years by many typical visitors, including many authors and artists.

An illustrative example of why the NPRM will fail to adequately protect thus noise sensitive areas adjacent to the Dragon Corridor can thus be seen in **the Dragon's continuing impact on Point Sublime.**

Point Sublime is an astounding 360-degree North Rim panoramic vista overlook (elevation 7,458'), accessible only in summer by a primitive road winding 17 miles through an equally sublime aspen, Ponderosa pine and fir forest. (See illustrations).



-3-

and tranquility provides an extraordinary place of thoughtful gaze, quiet picnics, and delighted contemplation afforded by solitude. The profound quietness on the Point's exposed outcroppings, plunging to **silence** as deep as 10 dB, is documented in the Final EA and NPS 1994 Report to Congress.

Point Sublime by its very nature, and the mood-setting opportunity required to reach it, often draws visitor users especially interested in and responsive to the building spell of enchantment. But incessant motor noise intrusions from approaching and passing aircraft spoil that spell. Aggravation and disappointment increase with each relentless hour.

This would be so even if the %TA ("Per Cent of Time Audible") figures experienced by Point Sublime visitors were "merely" the annual averages as computed by FAA, including those projected far in the future for the "quieter" years after 2008, as per the NPRM. For unhappily, the noisy Dragon Corridor careens around Point Sublime at a distance of only 2 to 2-1/2 miles, a small fraction of the full audibility radius of most tour aircraft, including "B" and "C" types defined in the NPRM.

Actually, the impact on Point Sublime visitors is seriously understated in both the Final Rule EA and NPRM Draft EA! That's because the Point is simply not accessible for much of the late fall, all of the winter, and most of the spring. The park gates are locked to visitors, the dirt roads are blocked with deep snow and/or downed trees. The only practicable time to visit Point Sublime is from late May to late October.

The only air tour acoustic data applicable to such visitors therefore would be limited to that for high season, i.e. **summer** figures (primarily June, July, August).

But by then the annual air tour frenzy has reached annual peak close to Point Sublime, resulting in **Per Cent of Time Audible** at **76%** in August/September 1992; (NPS Report, Figure 2.17.) NPS figures estimate the number of flights in the Dragon Corridor at **22-34/ hour**.

Summer flight levels are approximately four times winter levels, according to seasoned ground observers. Therefore, the year-long-average %TA and Leq12 figures shown for Point Sublime from the FAA noise modelling (as in Final Rule EA, see Tables 4.6 and 4.10) need to be markedly adjusted **upward** if they are to be relevant to actual summer visitor experiences at Point Sublime.



-5-

- SUBLIME:**
1. Elevated or exalted; noble.
 2. Supreme (as in a title).
 3. Awakening an uplifting emotion; a sense of elevated beauty, grandeur, etc. An elevation or exaltation almost beyond human comprehension. . .

But now at Sublime, at close of the 20th century, we tragically face permanent impairment of so superlative a visitor environment. It is hereafter to be impacted by relentless aircraft noise interruptions. Even the FAA's own underestimated modelling projections beyond 2008 document this (NPRM Draft EA, Figures 4-7, 4-8, 4-9; Tables 4.1.4c and g.)

Acoustic havoc will reign through the fragile silence.

After all those many years of hearings, regulations, and rules, and unmet promises, the visitor experience at Point Sublime is to be indefinitely, seriously impacted? In a word, ruined?

We originally presented this assessment in previous testimony concerning the Rule and its draft EA, in 1996. But the final Rule EA, and draft EA for this NPRM, confirmed our apprehension that the FAA may not be listening. This NPRM adds to our concern, because there simply is no valid issue preventing the FAA from proposing and achieving closure of the Dragon Corridor within the time frame of 1997-2008.

The question of alternative solutions could then be raised, as does the FAA in this NPRM. The FAA solicits comments on 3 or more alternatives re the Dragon Corridor specifically.

- (a) Removing the two-way loop permitted for helicopters in the Dragon Corridor and reinstating the 2-way loop in the Zuni Corridor.

The Sierra Club believes it is not acceptable to simply push intruding aircraft noise over into an equally noise-sensitive corridor, the Zuni. As explained on previous pages, this would exacerbate already unacceptable levels of impact at other seasonally restricted, noise-sensitive North Rim sites, e.g. Point Imperial, the Ken Patrick Trail, Vista Encantada, Cape



-7-

(2) The next problem that this NPRM presents is its continued premise -- at several points -- that more growth be allowed in the industry.

The Sierra Club's view is that the Grand Canyon National Park was not established for unlimited growth of the air tour industry. This "industry" long ago exceeded the natural carrying capacity of the Grand Canyon's acoustic environment and the quality visitor mental experience dependent on that environment's natural quiet. The "industry" has far exceeded any reasonable standard of necessary or desirable "viability", therefore. In truth, it was a far more **appropriately** viable and sustainable industry back in 1975.

The over-riding need now is to scale back and phase down to much reduced levels of flight operations, such as the more respectful levels which existed in the park in 1975, when concerns were already rising about aircraft noise.

Therefore, as to FAA's welcome request for comment on capacity issues:

- (a) Yes, at minimum an overall cap on fleet size should be maintained until completion of a Comprehensive Noise Management Plan.
- (b) Further, it is our view that this cap should be (a) applied to numbers of flights, not just numbers of aircraft, and that (b) it further be a steadily declining cap until the annual numbers of flights have stabilized at 1975 levels. A suggested rate of decline might be 5% a year over the next 15 or 20 years for areas outside the Dragon Corridors.

As suggested above, the declining cap for the Dragon might best average 10% per month, leading to its closure May 1, 1998. However, to realistically accommodate advance bookings and other operational realities, another suitable approach would be to fly at current "demand" levels there until May 1, 1998, when all Dragon operations would simply cease.

An intermediate rate of decline would be appropriate to get the Zuni down to 1975 levels. Incentives, i.e. "flexibility caps", in utilization of the Zuni would therefore be certainly appropriate. That is, one incentive would be to grant smaller annual phase-down increments ("declining"



-9-

between helicopters! Extended visits are essential (without aircraft acoustic distractions) to really get into the quiet music and the mystery of the Canyon, to experience and reflect on different moods and meanings, times of day, seasonal phenomena, light and cloud and shadow, etc., in short, to **wonder**.

This opportunity ought to be preserved at Point Sublime and other North Rim vista areas for future generations. But "airway robbery" of the experience quality possible there has boomed suddenly out of nowhere in just 10-20 years. This is incompatible with the unimpaired visitor experience our national parks were set up to foster.

The park's General Management Plan, furthermore (to relieve anticipated crowding), calls for more on-ground visitor dispersal to outlying North Rim vista areas of Point Sublime, Cape Royal, Point Imperial, and Cape Final. How will the visitors' experience quality fare against the noisy, heavy-duty flyways that will continue to be the Dragon and Zuni?

The summertime audibility metrics, once presented for those locations, and combined with FAA's projected flight operation growth curves (capped or not), will show how unlikely such reconciliation will be.

Hence we note, again, the unacceptability of both present and proposed route structures and utilization patterns. Such unconscionable **depletion** of so critical a Park attribute, one that provides soul and quality to the Park visitor experience, cannot be sustained.



NOTES AND CITATIONS (cont.)

6. Weir, Bill, ARIZONA TRAVELER'S HANDBOOK, (Moon Publications, Chico, California, 1990), p. 50.
7. McKibben, Bill, The End of Nature, (Random House, New York, 1989), p. 80.
8. An example of the speciousness of the "traditional economic reasoning" utilized in this NPRM is evident in its over-reliance on two of three economic studies (listed in chart entitled "Visitor-Day Values").

That two of the three cited studies don't seem really to fit this situation are seen by their very titles, as well as dates. There is no demonstrable visitor sensitivity equivalence between "Hiking in Arizona" and hiking at so special a place as **Point Sublime of the Grand Canyon!** Nor is there demonstrable visitor sensitivity equivalence between "Sightseeing in Bryce Canyon National Park" and **hiking** in Bryce Canyon or, for that matter hiking in **Grand Canyon**.

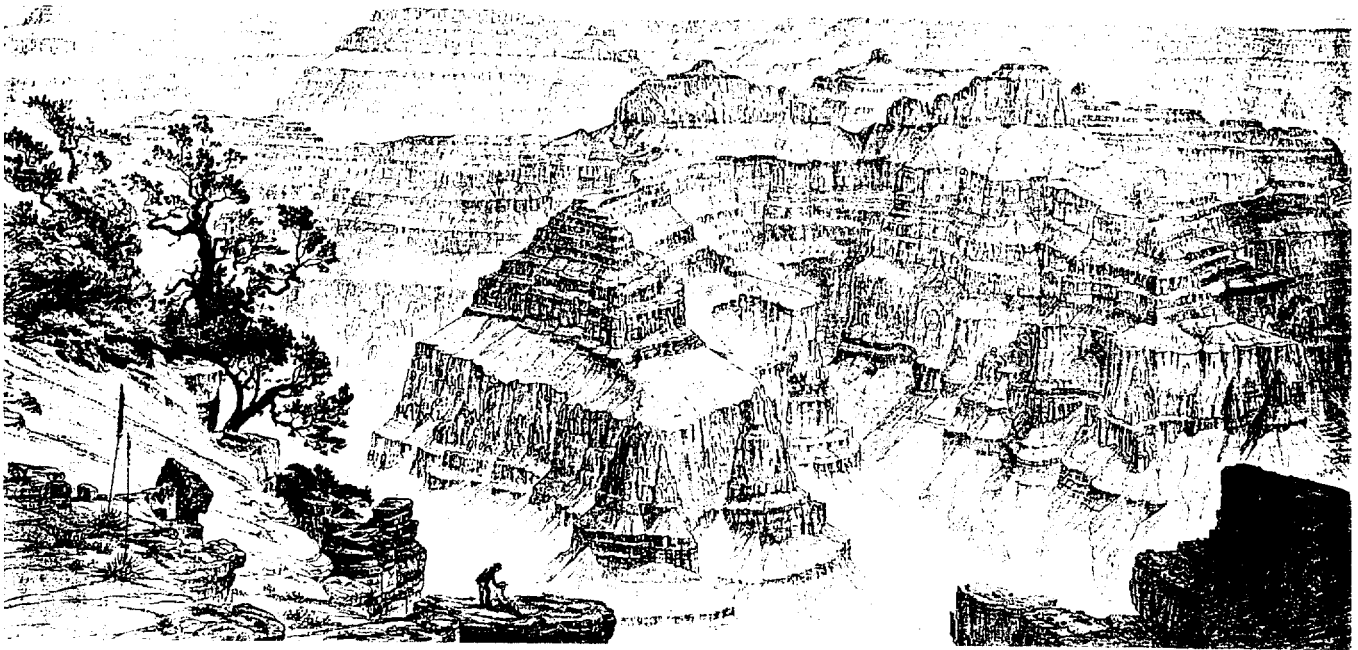
- "Arizona" is not the same as "Point Sublime".
- "Sightseeing" is often not the same as "Hiking", or as "Wondering".
- "Bryce Canyon" is a very different place, with different meanings, from Grand Canyon.
- 1973, or even 1982, is not the same as 1997.

Recent NPS Dose-Response data (NPOA Report No. 93-6, HMMH Report No. 290940.14) suggest that visitor-use sensitivity to noise intrusion (hence use-value placed on natural quiet) would increase for activities having to do with places so special as **Point Sublime** or for hiking in the backcountry. Such values would be expected further to be increasing as more and more people begin to consciously value disappearing natural quiet.

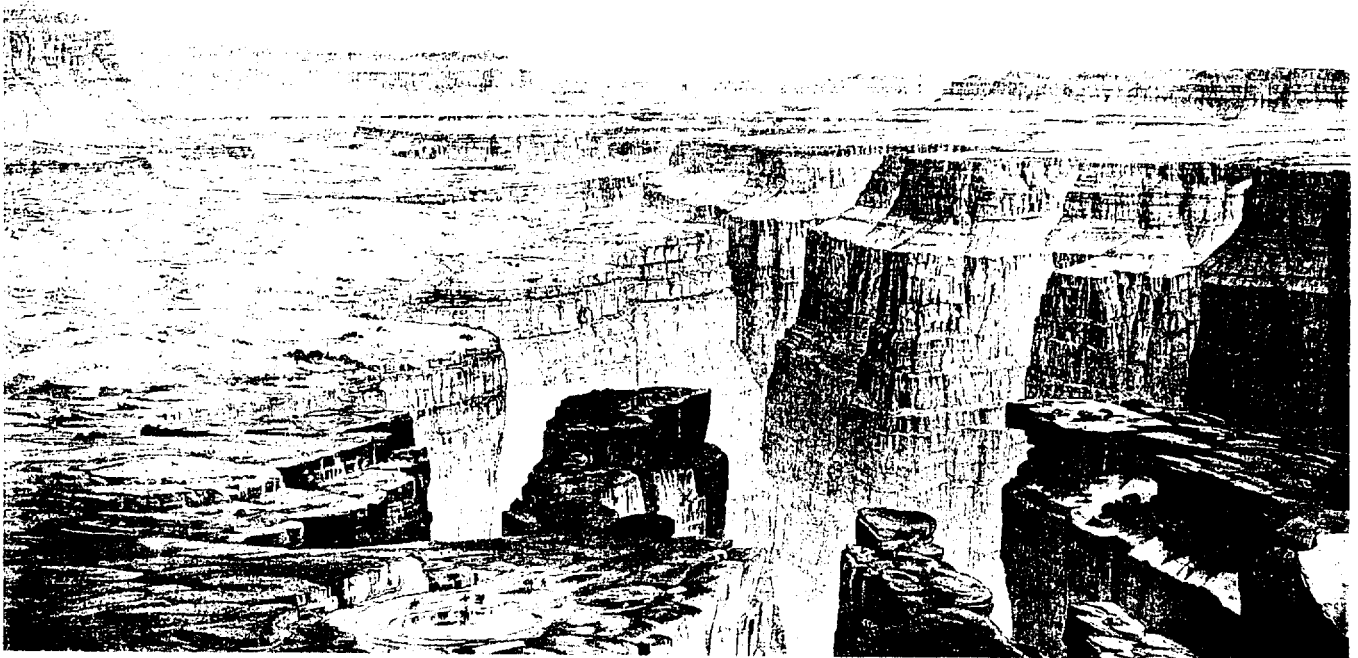
Another example of the speciousness of this traditional economic reasoning is based on its single-minded focus to date on the reduction of visitor-day values (corresponding to **increasing** noise impacts). What now is needed is serious research focussed on enhancement of visitor-day use values (corresponding to **decreasing** noise impacts).

The dose-response studies of NPS to date appear to have focussed on degrees of impairment from impacts, with little attention given to degrees of enhancement by increasing freedom from impacts.

NO LONGER SILENT
A MODERN VISITOR TO POINT SUBLIME AND TOROWEAP,
PICTURED HERE BY 19TH CENTURY ILLUSTRATOR WILLIAM HOLMES,
WILL HEAR TOUR AIRCRAFT 25-100% OF EACH DAY



Geology and art contemplate the Canyon: William Holmes, Panorama from Point Sublime, Looking East. One of three Holmes panoramas from Point Sublime, the set as a whole complements the geologic and esthetic climax Dutton makes from the same perspective. From the Atlas, Tertiary History.



The Canyon as gorge: William Holmes, View from Toroweap. In this, perhaps the most widely admired single piece of Canyon art, Holmes achieves an almost perfect balance between the vertical, the depth of the gorge, and the horizontal, the receding cliffs. The work illustrates beautifully Dutton's two-state theory of erosion — the first to the Esplanade, and the second to the gorge. From the Atlas, Tertiary History.



-14-

**DETAILED PREVIOUS TESTIMONY TO FAA CONCERNING POINT SUBLIME and
GRAND CANYON AIRCRAFT ON BEHALF OF SIERRA CLUB, ANGELES CHAPTER:**

1. Dick Hingson, representing Sierra Club - Angeles Chapter - at NPS/FAA Public Hearing on Draft Rule - Rules Docket #28537 - Las Vegas, Nevada September 19, 1996. Also FAA Public Hearing on Draft EA - Las Vegas, Nevada, September 20, 1996 and as extended in written testimony dated Sept. 26, 1996 and submitted to FAA as "Comments re the EA: Rules Docket #28653". See "Supplemental Comments on the Draft Rule, Docket # 28537, submitted by Hingson to FAA dated November 6, 1996. See also "Comments on Notice of Air Tour Routes", submitted to FAA January 27, 1997 and supplemented January 30, 1997.
2. Hingson also submitted personal written comment on his own behalf to FAA concerning Point Sublime and the Grand Canyon in the late 80's when the Dragon Corridor was first proposed: (Comments dated March 20, 1988, on draft Rule, Docket No. 25149; and dated July 25, 1988, on final Rule, same Docket.)



-15-

AIR TOUR CORRIDOR AUDIBILITY IMPACTS ON POINT SUBLIME AND TOROWEAP OVERLOOK

Detailed NPS field acoustic data collected in 1992 from North Rim vista areas cited (**Point Sublime** and **Toroweap Overlook**) is available in the 1994 NPS Report to Congress. (Fig. 2.18, Page 67, "Acoustic Profile Data, Grand Canyon National Park". See also Table 9.2: "Per Cent of Time Aircraft Were Audible", Pages 187-188.)

Fig. 2.18 shows actual 1992 measurements of background ambient levels vs. Lmax (peak sound levels) of about 70 aircraft overflights at Point Sublime and Toroweap Overlook.

Both vista points had **extremely low natural background ambience** readings; the mean was about 17 dB, with the quietest readings dropping as low as 10 dB.

This contrasts with median peak sound level (Lmax) of 38 dB for Point Sublime overflights, fully 21 dB above mean ambient. At Toroweap, the median Lmax was 49 dB, which is fully 32 dB above mean ambient.

The overwhelming majority of these numerous overflights were identified in Table 9.2 as being commercial air tours. The resulting Per Cent of Time Audible figures for Point Sublime and Toroweap Overlook: 76% and 54%, respectively.

As for the Road to Point Sublime (see text and fold-out illustration), Dragon Corridor tour helicopters and airplanes are flown directly above this road at 1500' to 2,000' AGL at Crystal Creek Overlook, itself a beautiful North Rim vista point, and the place where the road first emerges from the forest en route to Point Sublime.

Flight Frequency (per hour) average figures for 1990-93 for the Dragon Corridor (recorded at Crystal Creek Overlook) and at Toroweap Overlook can be examined in Federal Aviation Administration, 1995 Report to Congress: "Study of Increased Air Traffic over Grand Canyon National Park", Page 7.